

## ABSTRACT

### TRANSPARENT COPOLYMERS HAVING POLYAMIDE BLOCKS AND POLYETHER BLOCKS

**Company named:** ATOFINA

**Inventor:** Frédéric MALET  
Annett LINEMANN

The present invention relates to copolymers having polyamide blocks and polyether blocks, in which:

- the polyether blocks essentially consist of PTMG having a number-average molar mass  $\bar{M}_n$  of between 200 and 4000 g/mol;
- the polyamide blocks are formed from a linear (noncyclic, nonbranched) aliphatic predominantly semicrystalline monomer and from a sufficient amount of at least one comonomer to reduce their crystallinity, while remaining immiscible with the polyether amorphous blocks; and
- the shore D hardness is between 20 and 70.

These copolymers are useful for manufacturing many articles and in particular sports shoes.